

SERIES TYPE & NAME	BB HEIGHT & THICKNESS	#/SF		LOAD	CLEAR SPAN																		
		15-P-4	15-P-2		12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	78"	84"	90"	96"	102"	108"	114"	120"
SGAA-75-A	3/4" x 1/8"	5.5	5.5	U	1800	800	450	288	200	147	113	89	72	60	50	43	37	32	28	25	22	20	18
				D	0.025	0.056	0.099	0.155	0.223	0.304	0.399	0.503	0.620	0.757	0.893	1.058	1.224	1.395	1.580	1.798	1.989	2.245	2.481
				C	900	600	450	360	300	257	225	200	180	164	150	138	129	120	113	106	100	95	90
				D	0.020	0.045	0.079	0.124	0.179	0.243	0.318	0.402	0.496	0.602	0.714	0.836	0.976	1.116	1.276	1.435	1.607	1.796	1.984
SGAA-75	3/4" x 3/16"	7.5	7.7	U	2700	1200	675	432	300	220	169	133	108	89	75	64	55	48	42	37	33	30	27
				D	0.025	0.056	0.099	0.155	0.223	0.303	0.398	0.501	0.621	0.749	0.894	1.050	1.214	1.396	1.581	1.775	1.990	2.246	2.482
				C	1350	900	675	540	450	386	338	300	270	245	225	208	193	180	169	159	150	142	135
				D	0.020	0.045	0.079	0.124	0.179	0.243	0.318	0.402	0.496	0.600	0.715	0.840	0.974	1.117	1.273	1.436	1.608	1.791	1.986
SGAA-100-A	1" x 1/8"	6.9	7.2	U	3200	1422	800	512	356	261	200	158	128	106	89	76	65	57	50	44	40	35	32
				D	0.019	0.042	0.075	0.116	0.168	0.228	0.298	0.377	0.466	0.565	0.671	0.790	0.908	1.050	1.192	1.337	1.528	1.659	1.863
				C	1600	1067	800	640	533	457	400	356	320	291	267	246	229	213	200	188	178	168	160
				D	0.015	0.034	0.060	0.093	0.134	0.182	0.238	0.302	0.373	0.451	0.537	0.629	0.731	0.837	0.954	1.075	1.208	1.341	1.490
SGAA-100	1" x 3/16"	9.8	10.1	U	4800	2133	1200	768	533	392	300	237	192	159	133	114	98	85	75	66	59	53	48
				D	0.019	0.042	0.074	0.116	0.167	0.228	0.298	0.377	0.466	0.564	0.669	0.789	0.913	1.043	1.192	1.337	1.502	1.675	1.862
				C	2400	1600	1200	960	800	686	600	533	480	436	400	369	343	320	300	282	267	253	240
				D	0.015	0.034	0.060	0.093	0.134	0.183	0.238	0.301	0.372	0.450	0.536	0.629	0.730	0.838	0.953	1.075	1.208	1.346	1.490
SGAA-125-A	1-1/4" x 1/8"	8.2	8.7	U	5000	2222	1250	800	556	408	313	247	200	165	139	118	102	89	78	69	62	55	50
				D	0.015	0.034	0.060	0.093	0.134	0.182	0.239	0.302	0.372	0.450	0.537	0.628	0.730	0.839	0.952	1.073	1.212	1.335	1.490
				C	2500	1667	1250	1000	833	714	625	556	500	455	417	385	357	333	313	294	278	263	250
				D	0.012	0.027	0.048	0.074	0.107	0.146	0.191	0.242	0.298	0.361	0.429	0.504	0.584	0.670	0.764	0.861	0.966	1.075	1.192
SGAA-125	1-1/4" x 3/16"	11.7	12.2	U	7500	3333	1875	1200	833	612	469	370	300	248	208	178	153	133	117	104	93	83	75
				D	0.015	0.034	0.060	0.093	0.134	0.182	0.238	0.301	0.372	0.451	0.535	0.631	0.730	0.836	0.952	1.078	1.212	1.343	1.490
				C	3750	2500	1875	1500	1250	1071	938	833	750	682	625	577	536	500	469	441	417	395	375
				D	0.012	0.027	0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.361	0.429	0.504	0.584	0.670	0.763	0.861	0.966	1.076	1.192
SGAA-150-A	1-1/2" x 1/8"	9.6	10.6	U	7200	3200	1800	1152	800	588	450	356	288	238	200	170	147	128	113	100	89	80	72
				D	0.012	0.028	0.050	0.078	0.112	0.152	0.199	0.252	0.310	0.375	0.447	0.523	0.609	0.698	0.798	0.900	1.007	1.123	1.241
				C	3600	2400	1800	1440	1200	1029	900	800	720	655	600	554	514	480	450	424	400	379	360
				D	0.010	0.022	0.040	0.062	0.089	0.122	0.159	0.201	0.248	0.301	0.358	0.420	0.486	0.559	0.636	0.718	0.804	0.896	0.993
SGAA-150	1-1/2" x 3/16"	13.8	14.8	U	10800	4800	2700	1728	1200	882	675	533	432	357	300	256	220	192	169	149	133	120	108
				D	0.012	0.028	0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.375	0.447	0.525	0.607	0.698	0.796	0.894	1.003	1.123	1.241
				C	5400	3600	2700	2160	1800	1543	1350	1200	1080	982	900	831	771	720	675	635	600	568	540
				D	0.010	0.022	0.040	0.062	0.089	0.122	0.159	0.201	0.248	0.300	0.358	0.420	0.486	0.559	0.636	0.717	0.804	0.896	0.993
SGAA-175	1-3/4" x 3/16"	15.8	16.9	U	14700	6533	3675	2352	1633	1200	919	726	588	486	408	348	300	261	230	203	181	163	147
				D	0.011	0.024	0.043	0.067	0.096	0.130	0.170	0.215	0.266	0.322	0.383	0.450	0.521	0.598	0.682	0.767	0.860	0.961	1.064
				C	7350	4900	3675	2940	2450	2100	1838	1633	1470	1336	1225	1131	1050	980	919	865	817	774	735
				D	0.009	0.019	0.034	0.053	0.077	0.104	0.136	0.172	0.213	0.257	0.306	0.360	0.417	0.479	0.545	0.615	0.690	0.769	0.851
SGAA-200	2" x 3/16"	17.9	19.0	U	19200	8533	4800	3072	2133	1567	1200	948	768	635	533	454	392	341	300	266	237	213	192
				D	0.009	0.021	0.037	0.058	0.084	0.114	0.149	0.189	0.233	0.282	0.335	0.393	0.456	0.523	0.596	0.673	0.754	0.841	0.931
				C	9600	6400	4800	3840	3200	2743	2400	2133	1920	1745	1600	1477	1371	1280	1200	1129	1067	1011	960
				D	0.007	0.017	0.030	0.047	0.067	0.091	0.119	0.151	0.186	0.225	0.268	0.315	0.365	0.419	0.477	0.538	0.603	0.673	0.745
SGAA-225	2-1/4" x 3/16"	19.9	21.1	U	24300	10800	6075	3888	2700	1984	1519	1200	972	803	675	575	496	432	380	336	300	269	243
				D	0.008	0.019	0.033	0.052	0.074	0.101	0.132	0.168	0.207	0.250	0.298	0.350	0.406	0.466	0.530	0.597	0.670	0.746	0.828
				C	12150	8100	6075	4860	4050	3471	3038	2700	2430	2209	2025	1869	1736	1620	1519	1429	1350	1279	1215
				D	0.007	0.015	0.026	0.041	0.060	0.081	0.106	0.134	0.166	0.200	0.238	0.280	0.324	0.372	0.424	0.478	0.536	0.598	0.662
SGAA-250	2-1/2" x 3/16"	22.0	23.2	U	30000	13333	7500	4800	3333	2449	1875	1481	1200	992	833	710	612	533	469	415	370	332	300
				D	0.007	0.017	0.030	0.047	0.067	0.091	0.119	0.151	0.186	0.225	0.268	0.315	0.365	0.419	0.477	0.538	0.603	0.671	0.745
				C	15000	10000	7500	6000	5000	4286	3750	3333	3000	2727	2500	2308	2143	2000	1875	1765	1667	1579	1500
				D	0.006	0.013	0.024	0.037	0.054	0.073	0.095	0.121	0.149	0.180	0.215	0.252	0.292	0.335	0.381	0.431	0.483	0.538	0.596

U - Uniform Load - Lbs. per Square Foot

D - Deflection - in Inches

C - Concentrated Load - Lbs. per Square Foot of Width at Mid Span

- Spans and loading values to the left of the bolded black line produce a deflection of 1/4" or less under a uniform load of 100 lbs. per square foot, allowing for safe pedestrian comfort. Span and loading values to the right of the bolded black line are applicable to other types of loads at the discretion of a licensed engineer.
- SGAA and SGBB Series Grating is not designed for wheel traffic. SGBB Series Grating refers to 2" cross bar spacing (15-P-2). Series Name & Type for all SGBB sizes listed would be referred to as SGBB-75-A, SGBB-75, SGBB-100-A, etc.
- For Grating with a serrated surface (1" bearing bar height or taller), subtract 1/4" from the bearing bar height requirement and reference that loading information listed in the table. For example, a 1-1/2" x 3/16" serrated bearing bar height and thickness would have the same strength and loading values as a 1-1/4" x 3/16" smooth (non-serrated) bearing bar height and thickness.
- Loading and deflection values are theoretical and based on a maximum allowable fiber stress of 18,000 PSI, E = 29,000,000 PSI.
- Technical information provided is theoretical and for evaluation by technically skilled persons only, with any use thereof to be at their independent discretion and risk. **McNICHOLS** shall have no responsibility or liability for results obtained or damages resulting from improper evaluation or use of Grating.

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